

Week 1 Portfolio Project Report

Modern Software Engineering with DevOps

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1. Features My Application Will Offer

Cloud-Deployable Incident Tracking System with features:

- Create incident
- View incidents
- View single incident
- Update status
- Assign incidents
- Add comments
- Filter incidents

Optional: authentication, audit log, attachments, notifications.

2. API Endpoints Needed for Each Feature

Feature	Method	Endpoint	Details
Create incident	POST	/incidents/	Body: { title, description, priority }
List incidents	GET	/incidents/	Query params: status, priority, assigned_to
Get single incident	GET	/incidents/<id>/	Returns full incident details
Update incident	PUT	/incidents/<id>/	Body: { title, description, priority }
Update status	PATCH	/incidents/<id>/status/	Body: { status }
Assign user	PATCH	/incidents/<id>/assign/	Body: { user_id }
Add comment	POST	/incidents/<id>/comments/	Body: { text }
List comments	GET	/incidents/<id>/comments/	Returns all comments for an incident

3. Database Tables Required

Table: users

Column	Type	Constraints
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id	SERIAL	Primary Key
username	VARCHAR(50)	UNIQUE, NOT NULL
email	VARCHAR(100)	UNIQUE, NOT NULL

Table: incidents

Column	Type	Constraints
id	SERIAL	Primary Key
title	VARCHAR(200)	NOT NULL
description	TEXT	NOT NULL
priority	VARCHAR(20)	NOT NULL
status	VARCHAR(20)	DEFAULT 'Open'
created_at	TIMESTAMP	DEFAULT NOW()
updated_at	TIMESTAMP	DEFAULT NOW()
assigned_to	INT	Foreign Key -> users(id)

Table: comments

Column	Type	Constraints
id	SERIAL	Primary Key
incident_id	INT	Foreign Key -> incidents(id)
user_id	INT	Foreign Key -> users(id)
text	TEXT	NOT NULL
created_at	TIMESTAMP	DEFAULT NOW()

4. Optional ER Diagram Description

- users (1) -> (many) incidents
- incidents (1) -> (many) comments
- users (1) -> (many) comments